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Namibia: Geographic Factors Affecting UN Peacekeeping Operations

*Central Intelligence Agency
National Foreign Assessment Center*

August 1978

The United Nations Security Council will probably decide this month just when a UN force will be sent to Namibia (formerly South-West Africa) to oversee the election of an independent government there. The South African Government and the Democratic Turnhalle Alliance (DTA), the pro-South African political alliance, are arguing for the election to be held soon, before the rainy season (November-April) can restrict the political campaign. The South-West Africa People's Organization, the Namibian nationalist group backed by the UN and the Organization of African States and the principal adversary of the DTA, prefers that the election be held after the rainy season so that it can buy time to gain support in all parts of the territory. This paper discusses the geographic factors that will affect the operations of a UN peacekeeping force in Namibia.

Namibia, called "The Land God Made in Anger," is a land of great deserts, vast distances, and few people. The first stanza of the anthem of the Namibian whites goes:

"Our land is as hard as camel thornwood and the soil is dry.

The cliffs have been scorched by the sun and the animals in the bush are shy.

And should we be asked: 'What is keeping you here?'

We could only reply: 'We love the South-West.'"

Despite the harsh and forbidding landscape, living and traveling in Namibia should be comfortable and easy for the UN force because of the pleasant climate, the good road network, and the surprisingly modern cities and towns.

Namibia's area is about 824,000 square kilometers, twice the size of California. Its population is about 960,000, less than one-twentieth that of California. The territory extends along southern Africa's Atlantic seaboard for 1,500 kilometers from South Africa in the south to Angola in the north, a three-day drive along paved roads. In the north, the border with Angola and Zambia extends for 1,600 kilometers along some of the most isolated territory in southern Africa. This east-west span is only partly trafficable by motor vehicle because of the paucity of the road network.*

Namibia is fringed by the barren plains and shifting sand dunes of the Namib Desert in the west, and by the monotonous sand ridges of the Kalahari Desert in the east. Sandwiched in between and stretching from the South African border in the south to the Etosha Pan in the north (map) is the better watered Central Plateau. It is here that most of the territory's 100,000 whites have settled in small towns or on vast sheep or cattle ranches. More than half of the territory's nearly 800,000 blacks live in three of the homelands (Owambo, Kavango, and Caprivi) in the far north—the wettest region in the country and the only one suited to crop cultivation. (Most of the rest of the blacks live in urban townships or on whites' ranches. The 60,000 members of the mixed black-white groups live in or near the urban areas.**)

*The eastern one-third of this span is along the Caprivi Strip, the unusually shaped finger of land that juts eastward to the Zambezi River. A vestige of 19th century European colonialism, the Strip was ceded by Great Britain to Germany in 1893. German Chancellor Count von Caprivi wanted to link German South-West Africa with German territory in East Africa via the Zambezi but Cecil Rhodes' annexation of Rhodesia blocked further eastern extension of the German corridor.

**For a more detailed discussion on Namibia's demography and ethnic groups, see *Ethnic Issues: Key to Namibia's Future*, GC 78-10022, February 1978, [redacted]

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The Namib Desert

The Namib Desert covers nearly one-fifth of Namibia's land area, extending the full length of the coast and up to 120 kilometers inland. Most of the region is uninhabited and roadless. Rocky outcrops jut from flat, gravelly plains in the north; shifting sand dunes, among the world's highest, rise more than 300 meters above the surrounding terrain in the south. Annual rainfall averages less than 25 millimeters, and vegetation is totally lacking over most of the region. Years may pass with no rain at all. Despite its scanty precipitation, the coast is chilled by cold sea winds and thick nocturnal fogs develop that drift inland during the early morning hours.

Virtually all of the Namib population lives in three towns: Walvis Bay, with a population of 27,000, Namibia's only deep water port; Swakopmund, about 10,000, a beach resort town which is crowded with vacationers in the summer months (November-April); Luderitz, about 8,000, the home of the territory's rock lobster fleet. Economic activity in the Namib is confined to uranium mining at Rossing, east of Swakopmund, and to diamond mining in tightly guarded diamond areas between Walvis Bay and the South Africa border.

The Kalahari Desert

The Kalahari reaches from eastern Namibia into Botswana and South Africa. The landscape is less stark but much more monotonous than the Namib. Northwest-southeast trending parallel ridges, rising 100 meters above the surrounding land, extend in places as far as the eye can see. The Kalahari receives more rainfall than most other desert regions—up to 400 millimeters annually—but because of its porous soils the vegetation is confined to sparse desert grasses and shrubs. Economic activity is limited to sheep and cattle grazing. The population includes a few white ranchers and, in the north, a scattering of semi-nomadic Herero and Bushmen tribal people.

The Central Plateau

Terrain of the Central Plateau, which covers about one-half of Namibia, varies from gently rolling valleys to rugged mountains, much like parts of the southwestern United States. Elevations average 1,200 meters and culminate in a peak of nearly 2,500 meters near Windhoek. Precipitation ranges from a low of 150 millimeters in the south to more than 500 millimeters in the north, and vegetation varies accordingly—scrub

and sparse grasses in the south, lush grasses and scattered trees in the north.

About one-half of the territory's population lives on the Central Plateau but, even there, the population density is little more than one person per square kilometer. A traveler can drive for long distances without seeing any signs of human habitation. Most of the rural population lives on huge ranches that raise karakul sheep in the south, cattle in the north. Windhoek, a modern bustling city of 77,000 people, is the political and economic hub of the territory. Four other towns on the Central Plateau have populations of about 10,000: Tsumeb, a copper-mining town in the north; Gobabis, a ranching center, on the edge of the Kalahari in the east; Rehoboth, the home of most of the Basters (a mixed black-white ethnic group), just south of Windhoek; and Keetmanshoop, a sheep-raising center, in the south.

The North

The northern sector of the territory—north of the Etosha Pan and comprising four of the black homelands (Kaokoland, Ovambo, Kavango, and Caprivi)—is an area of flat to rolling terrain and of generally higher rainfall, lusher vegetation, and heavier population concentrations than the rest of Namibia. Annual rainfall normally exceeds 500 millimeters in Ovambo, the rainiest part of the north. The northern vegetation includes savanna mixed with scattered stands of deciduous forest, cultivated fields of millet and sorghum, and even a few palm trees along the streams. Only in the far west is the land dry and barren year round.

Ovambo is the most densely populated area in Namibia. Nearly 400,000 Ovambo tribal people, two-fifths of the territory's population, live in small, closely spaced villages of 20 huts or so. Population densities drop sharply both to the west and to the east. The primitive Kaokovelder tribe lives on the margins of the Namib Desert to the west, in the most remote corner of Namibia. The Kavango and Caprivi tribes live to the east in villages along the Okavango River and along the main road; elsewhere the settlement pattern is sparse.

The Climate

Despite the prevalence of desert or semi-desert conditions over most of Namibia, the climate is pleasant, and members of the UN force are not likely to encounter much discomfort. Daily high summer (November-April) temperatures at Windhoek average

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29°C, daily lows average 16°C; daily high winter (May-October) temperatures average 21°C, daily lows average 7°C. Lightweight clothing, supplemented by a sweater or jacket for the cool winter evenings, should be adequate. Only in the Namib Desert are temperatures likely to be extreme and, even there, they are unlikely to climb above 38°C during the day or drop below freezing at night.

The territory has distinct winter dry and summer rainy seasons (table 1), but only in the north—particularly in Owambo—does this have an appreciable impact on the natural vegetation, the seasonal cultivation of crops, or the road conditions. During the dry months (May-October) the northern soils are parched, the grasses burnt, the trees leafless. During the wet season (November-April), floods spread over vast areas and villages protrude like islands; the grasses grow luxuriant and the forests gain a leaf canopy. In places, the flooded landscape looks more like lowland Southeast Asia than southern Africa. Unlike Southeast Asia, however, the rains are unpredictable and many years have serious droughts.

The southern two-thirds of the territory receive less than 400 millimeters of rainfall annually. Underlying rock is porous and there are no perennial streams. (Only the Kunene and Okavango Rivers along the northern border and the Orange River, which forms the southern border, have year-round flows.)

The Transportation Network

Namibia has a good road system. Travelers can, in a day or two, get from Windhoek to all major towns on paved highways and to most smaller settlements (except in parts of the northern homelands) on good loose surfaced roads. Of the 35,000-kilometer-long road system, about 2,500 kilometers are hard surfaced, a few hundred kilometers are gravel, and the rest are earthen roads or tracks. Paved roads extend all the way from the South African border in the south to the Angolan border in the north. Paved branch roads extend westward from the main artery to Walvis Bay,

eastward to Gobabis. A combination paved and gravel road also extends westward to Luderitz.

Pretoria probably exaggerates the impact that the rainy season will have on the election campaign. Only in the north will weather conditions be a factor in vehicular mobility. Automobile traffic on unsurfaced roads there may be disrupted in low-lying sections for days at a time from late November to early April. Four-wheel-drive vehicles are essential. Elsewhere, the major problem that a traveler would encounter on the unsurfaced roads is the dusty conditions during most of the year. The dust is dissipated only for brief periods after heavy rains.

The South Africans have upgraded the northern roads in recent years. The paved road extending northwest from Tsumeb for 250 kilometers to Oshakati in the heart of Owambo is not likely to be disrupted by rain. The trip should take no more than a few hours. Traveling to the eastern homelands, however, may be more difficult. The road that runs northeastward from Grootfontein (which has served as the major base for the South African Defense Force serving in the north) to Kavango and Caprivi is tarred for only a few kilometers from Grootfontein and gravelled the rest of the 230 kilometers to Rundu on the Angolan border. The trip should take only a few hours in good weather. The gravel and dirt road that reaches eastward from Rundu through Caprivi to Katima Mulilo is being improved and, when construction is completed, will be all-weather. A few sections reportedly have been paved, but work on much of the road is incomplete and traffic may still be disrupted in places during the rainy season. A bridge across the Okavango River has recently been opened so that vehicles no longer need to cross by ferry, a risky operation during heavy flows in the river. All other northern roads are gravel or earth and may be in poor condition in the rainy season.

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Namibia has an abundance of airfields that would facilitate the quick movement of a UN team to any part of the territory on short notice. There are 14

Table 1

Mean Monthly Rainfall (Millimeters)

Station	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Tsumeb	119	139	79	40	6	0	0	0	1	19	53	97	553
Windhoek	77	73	81	38	6	1	1	0	1	12	33	47	370
Swakopmund	1	2	2	2	0	0	0	0	0	0	1	0	10
Keetmanshoop	22	30	35	13	5	2	1	1	2	5	14	17	147
Ondangwa (Owambo)	100	120	85	33	3	0	0	0	3	13	43	85	485

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Table 2

Namibia - Major Airfields

Name	Coordinates	Elevation (meters)	Length	Surface
Crootfontein	19° 36'S, 18° 08'E	141	2,682	asphalt
Karibib	21° 50'S, 15° 54'E	1,164	2,590	asphalt
Katima Mulilo	17° 30'S, 24° 14'E	984	2,286	asphalt
Keetmanshoop	26° 33'S, 18° 07'E	1,069	2,317	asphalt
Luderitz	26° 41'S, 15° 15'E	130	1,829	asphalt
Ondangua	17° 53'S, 15° 58'E	1,079	2,286	asphalt
Ruacana	17° 25'S, 14° 22'E	1,149	2,134	asphalt
Rossing	22° 28'S, 14° 59'E	582	1,920	asphalt
Rundu	17° 58'S, 19° 43'E	1,097	2,134	asphalt
Tsumeb	19° 16'S, 17° 44'E	1,326	1,615	asphalt
Tsumkwe	19° 35'S, 20° 28'E	1,128	1,829	gravel
Walvis Bay	22° 59'S, 14° 39'E	88	2,134	asphalt
Windhoek (J.G. Strijdom)	22° 29'S, 17° 28'E	1,719	4,511	asphalt
Windhoek (Eros)	22° 37'S, 17° 05'E	1,700	1,829	asphalt

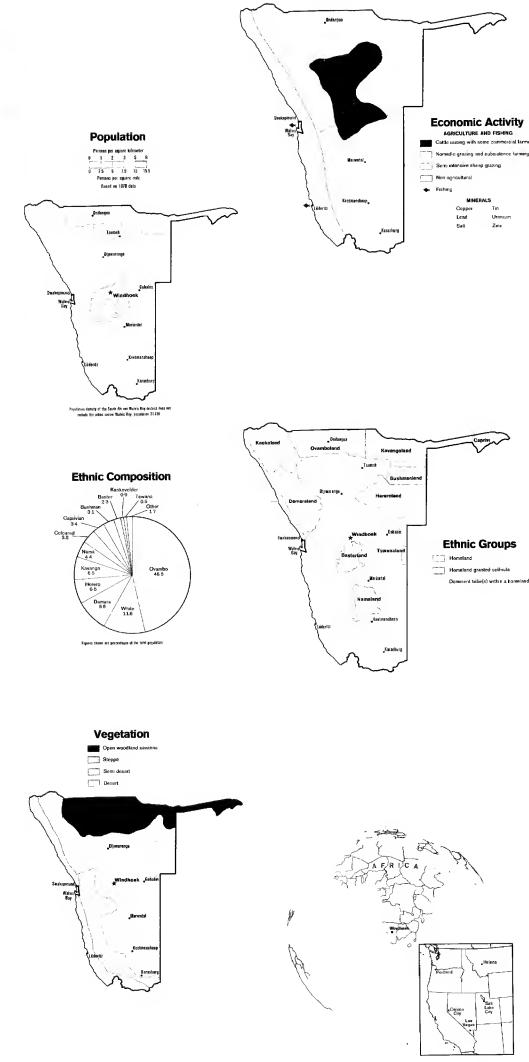
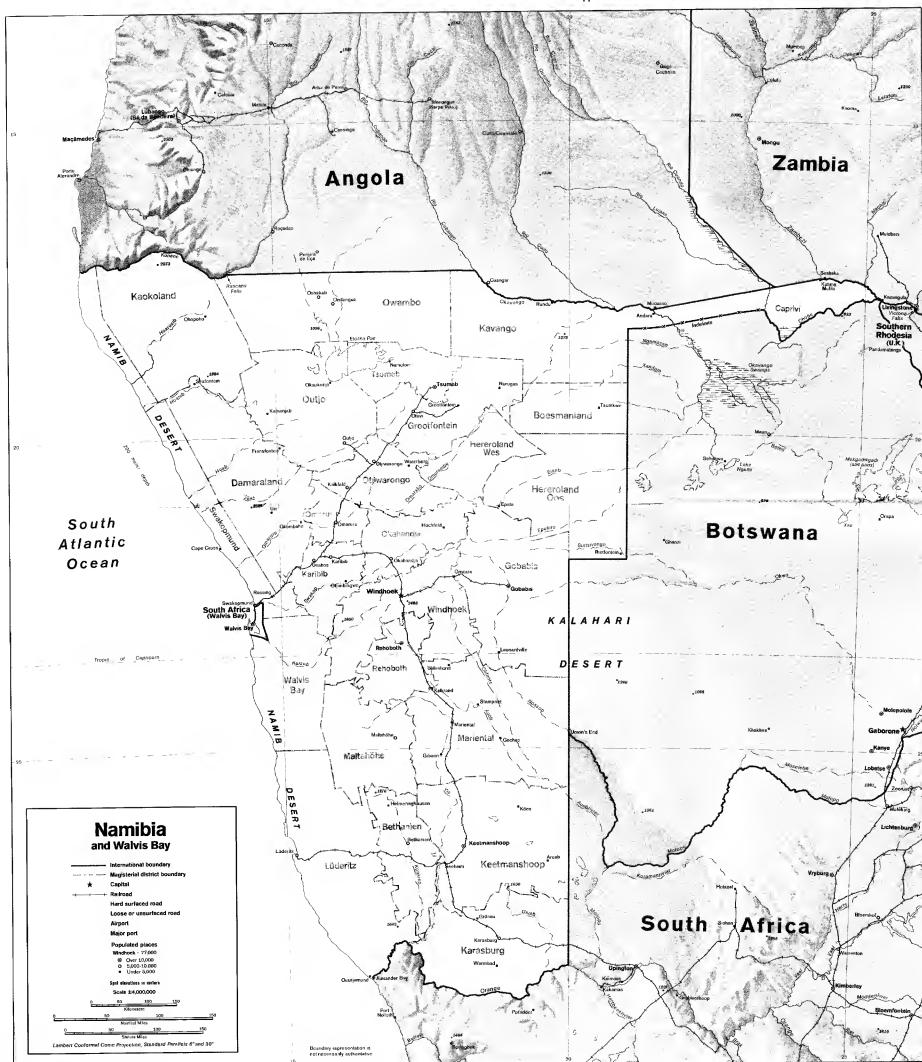
surfaced airfields (13 asphalt and 1 gravel; table 2 and map). All will accommodate C-130s and some will handle B-727s. In addition, a large number of unsurfaced landing strips in the smaller towns and on the ranches can be used by small craft.

A rail network of 2,300 kilometers moves the territory's exports and imports either through Walvis Bay or South Africa. The railroads are not a significant mover of passengers and are not likely to play a role in the movement of the UN force.

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*Note: The author of this paper is [redacted]
Geography Division, Office of Geographic and Cartographic Research. Comments and queries are welcome and should be directed to [redacted]*

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